

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Interference Immunity Performance)	ET Docket No. 03-65
Specifications for Radio Receivers)	
)	
Review of the Commission's Rules and)	MM Docket No. 00-39
Policies Affecting the Conversion to)	
Digital Television)	
)	

**JOINT REPLY COMMENTS OF
THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC., AND
THE NATIONAL ASSOCIATION OF BROADCASTERS**

The Association for Maximum Service Television, Inc. ("MSTV") and the National Association of Broadcasters ("NAB")¹ were pleased with the broad support expressed in initial comments for the establishment of voluntary performance standards for DTV receivers. DTV receiver performance standards will improve the quality of DTV receivers and their uniformity of performance, increasing their marketplace acceptance and promoting the completion of the digital transition — which in turn will both enhance the nation's free, over-the-air broadcast service and allow the Commission to reclaim valuable spectrum for new wireless services. MSTV and NAB urge the Commission to actively monitor and participate in the voluntary standard-setting process that is already underway under the auspices of the Advanced

¹ MSTV is a non-profit trade association of local broadcast television stations committed to achieving and maintaining the highest technical quality for the local broadcast system. NAB is a non-profit, incorporated association of radio and television stations that serves and represents the American broadcast industry.

Television Systems Committee, Inc (ATSC), with the goal of ensuring the timely development and implementation of minimum performance standards for DTV receivers.

I. THE RECORD DEMONSTRATES WIDESPREAD SUPPORT FOR THE ESTABLISHMENT OF DTV RECEIVER PERFORMANCE STANDARDS.

The record supports the establishment of voluntary performance standards for DTV receivers.² As explained by MSTV and NAB in their initial comments in this proceeding, DTV receiver performance standards will help improve the quality of DTV tuners, which in turn will go a long way toward establishing consumer confidence in broadcast DTV and promoting the completion of the digital transition.³

Note that while several parties opposed the idea of receiver performance standards more generally, these comments were directed at non-broadcast radio services such as wireless and satellite operations.⁴ As MSTV and NAB noted in their initial comments, the need for receiver performance standards is greater in the open architecture over-the-air broadcast system, in which broadcasters do not control the performance of television receivers, than it is in closed networks such as commercial wireless and satellite, in which a single operator typically controls the performance of both transmitters and receivers and is better able to optimize network performance.⁵ In an open system such as broadcasting, there is a greater need for a standard-

² *Comments of MSTV/NAB* at 5-7; *Comments of the Consumer Electronics Association (CEA)* at 2-3; *Comments of Zenith Electronics Corp.* at 2-3; *Comments of StarZ Encore Group LLC* at 3.

³ *MSTV/NAB Comments* at 5-7.

⁴ *See, e.g., Comments of Ericsson Inc.; Comments of AT&T Wireless Services, Inc.* at 9-14; *Comments of Bellsouth Corp. and Cingular Wireless LLC* at 10-16; *Comments of The Satellite Industry Association (SIA)* at 2-6; *Comments of PanAmSat Corp.* at 2-5.

⁵ *MSTV/NAB Comments* at 2, 5-6.

setting process to ensure that television receivers purchased by consumers adequately receive over-the-air broadcast signals.⁶

A. The Adoption of DTV Receiver Performance Standards Is Critical To The Successful Completion Of The Digital Transition For Free Over-The-Air Television.

MSTV and NAB agree with the several parties that stress the importance to the digital transition of adequate DTV receiver performance standards.⁷ As the Commission is well aware, successful completion of the digital transition will serve not only to enhance the nation's free, over-the-air broadcast service, but also to free up spectrum for other wireless services, including public safety services.⁸ One of the contributing factors for the slow progress of the digital transition has been the inconsistent quality and variable performance of over-the-air DTV reception devices.⁹ The Commission has already recognized the importance of ensuring that all DTV receivers include over-the-air tuners;¹⁰ it now should ensure that such over-the-air DTV tuners are capable of adequately receiving and displaying digital television signals. High quality over-the-air reception is critical to enhancing consumer confidence in and marketplace

⁶ *Id.*

⁷ See, e.g., *Comments of Motorola, Inc.* at 9-10; *Sinclair Broadcast Group Comments* at 8-9; *Pappas Telecasting Companies Comments* at 10-15; *MSTV/NAB Comments* at 3-6.

⁸ See, e.g., *Motorola Comments* at 9-10.

⁹ *Sinclair Broadcast Group Comments* at 3-6; *MSTV/NAB Comments* at 2-3. CEA suggests that problems associated with over-the-air DTV reception stem from the fact that not all broadcasters are operating at full-power. *CEA Comments* at 7 n.13. MSTV and NAB disagree, noting that DTV reception problems occur even in areas in which broadcasters are operating at full power or in areas in very close proximity to DTV transmitters.

¹⁰ *Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, Second Report and Order and Second Memorandum Opinion and Order, 17 FCC Rcd 15,978, 15,989-99 (2002) (phasing in requirement that broadcast television receivers include DTV tuners).

acceptance of DTV, and the adoption of DTV receiver performance standards promises to jump-start a bandwagon effect for the DTV transition.¹¹

B. The Commission Should Continue To Monitor And Promote The Voluntary Industry Effort To Develop DTV Receiver Performance Standards.

MSTV and NAB are encouraged by the participation of various industry groups working together as part of the ATSC process to develop a formal Recommended Practice for DTV receiver performance. MSTV and NAB agree with those commenters that recognize the importance of and support the efforts of the ATSC working group.¹² The ATSC process has already begun, and the involved parties expect to meet the timeline suggested by the Commission, which would call for publication of the ATSC Recommended Practice by April 2004.¹³ The Commission should continue to support and monitor this voluntary industry effort, ensuring that the published DTV receiver performance standards address the relevant technical issues without stifling innovation.¹⁴ MSTV and NAB strongly believe that industry groups can work together to establish receiver standards that provide sufficient direction to manufacturers to ensure that they produce quality over-the-air DTV tuners without stifling innovation or freezing technological developments.¹⁵

While the progress of the ATSC working group is so far encouraging, the Commission should continue to oversee and actively foster this voluntary effort. Should the

¹¹ *MSTV/NAB Comments* at 6-7.

¹² *CEA Comments* at 2-3; *Zenith Comments* at 2-3; *Pappas Telecasting Companies Comments* at 3; *MSTV/NAB Comments* at 3-6.

¹³ *Comments of ATSC* at 2; *Zenith Comments* at 4.

¹⁴ *MSTV/NAB Comments* at 4; *CEA Comments* at 4-5.

¹⁵ *MSTV/NAB Comments* at 4.

ATSC discussions fail to establish DTV receiver performance standards in a timely fashion, the Commission should be prepared to take appropriate action.

C. The Commission Has Broad Statutory Authority To Promulgate DTV Receiver Performance Standards, But Need Not Invoke It At This Time.

The Consumer Electronics Association (CEA) suggests that the Commission's authority to adopt DTV performance standards is limited to interference immunity standards and does not extend to performance standards relating to baseline reception capabilities.¹⁶ MSTV and NAB, along with several commenting parties, disagree with this conclusion and note that the Commission has broad statutory authority to promulgate all manner of DTV receiver performance standards.¹⁷ MSTV and NAB note, however, that the Commission's statutory authority to promulgate DTV receiver performance standards derives not only from Sections 4(i), 301, 302(a), 303(e), 303(f), and 303(r) of the Communications Act of 1934, as amended, as identified by the FCC, but also from Section 303(s). As CEA notes, Section 302(a) clearly gives the Commission the authority to adopt immunity standards for DTV receivers.¹⁸ In addition,

¹⁶ *CEA Comments* at 11-13. CEA distinguishes between "immunity standards," which it says relate to a receiver's ability to "reject signals outside of its intended frequency range," and "performance standards," which it says relate to "a receiver's operation when performing its intended functions." *Id.* at 11-12.

¹⁷ *Comments of National Public Radio, Inc.* at 7-8; *Comments of ARRL, The National Association for Amateur Radio* at 3-9; Notice of Inquiry, *Interference Immunity Performance Specifications for Radio Receivers; Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, ET Docket No. 03-65, MM Docket No. 00-39, FCC 03-54, at 9, ¶ 22 (rel. Mar. 24, 2003) (citing Sections 4(i), 301, 302(a), 303(e), (f), and (r) of the Communications Act as providing the statutory authority necessary for the Commission to adopt receiver performance standards); *cf. Comments of Intersil Corp.* at 7 (arguing that the Commission's authority to adopt receiver performance standards does not apply to unlicensed devices and is limited to home electronic equipment and systems such as AM/FM radios and television receivers).

¹⁸ 47 U.S.C. § 302a(a)(2) ("The Commission may, consistent with the public interest, convenience, and necessity, make reasonable regulations . . . establishing *minimum performance* (continued...)")

with respect to DTV receiver performance standards more generally, the All Channel Receiver Act (ACRA) plainly grants the Commission the authority to require that television sets be “capable of *adequately receiving* all frequencies allocated by the Commission to television broadcasting”¹⁹ Therefore, just as the Commission had the authority to require DTV tuners in television receivers, it has ample authority to ensure that such receivers *adequately* receive over-the-air digital broadcast signals. In other words, the Commission’s statutory authority to promulgate DTV receiver performance standards is broadly defined, encompassing baseline reception capabilities of DTV receivers, and is not limited to establishing interference immunity standards.²⁰

MSTV and NAB note that while the Commission possesses ample statutory authority to promulgate DTV receiver performance standards, it will not need to invoke that authority if it chooses to facilitate a voluntary standard-setting process (which is all that is being contemplated by the Commission at this stage of this proceeding). The comments filed in this proceeding by TV set manufacturers indicated that they are participating in and supporting the ATSC voluntary process,²¹ which bolsters MSTV and NAB’s belief that the ATSC effort can result in a timely and meaningful voluntary Recommended Practice on DTV receiver performance. However, if necessary, the Commission’s statutory authority may be invoked later if the voluntary industry standard-setting process fails, is delayed, or is otherwise ineffective.

standards for home electronic equipment and systems to reduce their susceptibility to interference from radio frequency energy.”) (emphasis added).

¹⁹ 47 U.S.C. § 303(s) (emphasis added).

²⁰ See *Reply Comments of MSTV in MM Docket No. 00-39*, at 10-14 (June 16, 2000).

²¹ *CEA Comments* at 5; *Zenith Comments* at 2.

II. DTV RECEIVER PERFORMANCE STANDARDS ARE NEEDED TO ADDRESS EXISTING PROBLEMS WITH OVER-THE-AIR DTV RECEPTION AND SHOULD NOT BE USED TO JUSTIFY THE INTRODUCTION OF UNLICENSED DEVICES IN BROADCAST SPECTRUM.

Several parties appear to suggest that adopting performance standards for over-the-air DTV receivers might facilitate spectrum sharing in the broadcast spectrum between broadcasting and unlicensed operations.²² MSTV and NAB, like many other commenters, strongly caution against using the adoption of receiver performance standards as an excuse to permit the introduction of unlicensed devices in the broadcast spectrum — either as “underlay” or “overlay” operations.²³ As explained earlier in greater detail by MSTV and NAB, unlicensed devices operating in broadcast spectrum may cause significant interference to DTV receivers because the technology necessary to ensure that such devices do not cause interference is at present unreliable and untested.²⁴ Unlicensed devices are also largely uncontrollable once they are introduced into the market, making it next to impossible for broadcasters to monitor and alleviate interference concerns once they arise.²⁵ Moreover, with respect to an “overlay” of unlicensed devices in the broadcast band, there is very little “unused” broadcast spectrum — particularly during the digital transition — making the potential risk of interference to and disruption of DTV service far greater than any potential benefit realized from unlicensed devices

²² *Sinclair Broadcast Group Comments* at 9; *Comments of Microsoft Corp.* at 3.

²³ *Motorola Comments* at 4-6; *ARRL Comments* at 2; *BellSouth/Cingular Comments* at 12-14.

²⁴ *MSTV/NAB Comments* at 10; *Joint Comments of MSTV, NAB, and APTS in ET Docket No. 02-380*, at 7-9 (Apr. 17, 2003); *Joint Comments of MSTV and NAB in ET Docket No. 02-135*, at 11-14 (Jan. 27, 2003).

²⁵ *MSTV/NAB Comments* at 10; *Joint Comments of MSTV, NAB, and APTS in ET Docket No. 02-380*, at 10-11 (Apr. 17, 2003).

operating in the broadcast spectrum.²⁶ Finally, with respect to an “underlay” of unlicensed operations in the broadcast spectrum, the vast majority of commenters in the Commission’s *Spectrum Policy Task Force* proceeding noted that the “interference temperature” metric, which is central to the concept of unlicensed underlay operations, cannot be implemented without significant further study and testing of its real-world performance.²⁷

In short, DTV receiver performance standards are needed to address *existing* problems with the lack of adequate over-the-air DTV reception so as to enhance consumer confidence in DTV and spur the digital transition. Such standards should not be used to justify the introduction of unlicensed devices in broadcast spectrum. Unlicensed devices should be authorized to operate in spectrum dedicated to unlicensed operations, which has proven to be a highly successful model.²⁸

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²⁶ *MSTV/NAB Comments* at 11; *Joint Comments of MSTV, NAB, and APTS in ET Docket No. 02-380*, at 19-22 (Apr. 17, 2003).

²⁷ *Joint Reply Comments of MSTV and NAB in ET Docket No. 02-135*, at 10-13 (Feb. 28, 2003).

²⁸ Unlicensed operations have proven to be extremely successful in bands such as 2.4 GHz and 5.7 GHz that are dedicated to unlicensed use. *See Joint Comments of MSTV, NAB, and APTS in ET Docket No. 02-380*, at 20-21 (Apr. 17, 2003) (noting that dedicated spectrum for unlicensed devices would allow manufacturers to take advantage of economies of scale by designing and building inexpensive equipment designed for a single band); *Joint Reply Comments of MSTV and NAB in ET Docket No. 02-135*, at 8-9 (Feb. 28, 2003) (noting that proponents of unlicensed operations vastly prefer spectrum that is dedicated for unlicensed operations).

Respectfully submitted,

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